

one who has tried this will recognize how difficult this seemingly simple operation is. In order to accomplish this successfully, a second microscope was taken (it happened to be an old model without rack and pinion), and was divested of its tube. On the arm a piece of wood was wired and the object-holder — in this case a test-tube — firmly fixed to it. The two microscopes were brought together as shown in the figure and constituted in combination a horizontal microscope. By means of the micrometer screw on the microscope carrying the object, its vertical position could be regulated to a nicety and both of the microscopes being level as to their bases, no errors other than those inherent in such instruments are met with. Of course if the object being measured is itself not vertical, the usual difficulties will be met with. One can only take the usual precautions against this.

A REMARKABLE PHYSALIS

BY ROBERT F. GRIGGS

For nearly ten years the very peculiar *Physalis* described below has lain, undiscovered, in the National Herbarium. It had been labelled *Physalis Fendleri* but its flowers are five times smaller than in that species. Probably whoever made the first identification never saw the flowers at all and it is not to be wondered at that he did not for they would hardly be noticed except on careful search or by accident. It was by the latter that the writer found one of them after having previously examined the sheet more than once in connection with other work on the genus. Search revealed several more — all of the same degree of minuteness. There is but one sheet, but there seems to be no reason for supposing it to be a freak or abnormal in any respect as the fruits are entirely ordinary and like others of the genus. Hence the following name and description are offered.

Physalis minuta sp. nov.

Perennial from an underground stem, spreading, forming small tufts or mats on the ground; branches not more than 30 cm.

long, the larger 4-angled, glabrous, the smaller roundish, somewhat pubescent: leaves ovate, nearly entire, mostly rounded at both ends, often pubescent on the veins, sometimes all over, blade of the largest 17 mm. long, 10 mm. broad, mostly smaller (10 × 8 mm.); petiole shorter than the blade, generally pubescent with scattered hairs: peduncle at flowering time not more than 3 mm. long, fine-filiform: calyx shorter than the peduncle, frequently less than 1 mm. in longest dimension, longer than broad, tube longer than the teeth: corolla very small, about 2 mm. in diameter when fully expanded, darkened at the center; anthers purple: calyx in fruit about 15 mm. long, more or less 5-angled, teeth very short (less than 2 mm.) connivent; peduncle shorter than the calyx, very slender: berry yellow, much smaller than the calyx, 5 mm. in diameter when dry.

Acapulco, Mexico, Dr. Edward Palmer, winter of 1894-95, no. 304.

Physalis minuta belongs to the *crassifoliae*; its leaves have much the general appearance of *P. crassifolia*, to which undoubtedly it is closely related. It is, however, very different from that species in the very short, slender peduncles, the minute flowers and the connivent calyx-teeth. The size of the flower suggests affinity with *P. minutiflora* Moç. & Sessé but it differs at least in the entire leaves without any sign of being pruinose.

Dr. Palmer states that the fruit of this plant is sold all the year round in the markets of Acapulco for making soups, gravies and stuffing for fowls.

COLUMBUS, OHIO.

TWO ORCHIDS FROM NEW MEXICO

BY T. D. A. COCKERELL

On June 17 and 18 of the present year, Dr. M. Grabham of Jamaica, West Indies, who was visiting me at Pecos, New Mexico, collected in the immediate vicinity two species of *Corallorhiza*, which he brought to me alive. After studying the specimens, they were put in press, and examples have been sent to the New York Botanical Garden, to which also the living roots were forwarded.